



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,436	03/26/2004	Steven T. Fink	250975US6 YA	8103
22850 7590 06/30/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ZERVIGON, RUDY	
			ART UNIT 1792	PAPER NUMBER
			NOTIFICATION DATE 06/30/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No. 10/809,436	Applicant(s) FINK, STEVEN T.	
	Examiner Rudy Zervigon	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 and 9-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 2-9, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Moslehi; Mehrdad M. et al. (US 6073576 A). Moslehi teaches a temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) for shielding a substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) in a semiconductor processing system (Figure 6), the temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) comprising: a cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) having a coolant passage (400; Figure 10; column 14, line 54 - column 15, line 4) therein; a plenum adaptor (370; Figure 10; column 14, line 60) coupled to the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) and configured to connect to a coolant system (372; Figure 10; column 14, line 55) for circulating coolant to the coolant passage (400; Figure 10; column 14, line 54 - column 15, line 4), the plenum adaptor (370; Figure 10; column 14, line 60) having a plenum adapter ring (piece immediately below 370, atop 380; Figure 10) configured to be supported by the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) when the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is shielding (from below) the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) (380; Figure 10; column 14, line 54 - column 15, line 4), wherein the temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 -

column 15, line 4) does not include any fastening mechanism¹ (none shown directly associated with 370) that mechanically fixes the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) to the substrate holder to maintain a position of the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) on the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 9

Moslehi further teaches:

- i. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 9, wherein the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) comprises: a cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63); and a heat conducting element (386; Figure 10; column 14, line 54 - column 15, line 4) connected between the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) and a location where a substrate would rest during processing, the heat conducting element (386; Figure 10; column 14, line 54 - column 15, line 4) configured to transfer heat from the substrate to the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63), as claimed by claim 2
- ii. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 2, wherein the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) comprises a ceramic material (“aluminum oxide”; column 7, lines 48-63), as claimed by claim 3

¹ Such as nuts & bolts and/or screws.

- iii. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 2, wherein the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) comprises anodized aluminum (“aluminum oxide”; column 7, lines 48-63), as claimed by claim 4
- iv. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 9, wherein the coolant comprises a dielectric fluid, as claimed by claim 5. Applicant’s claim requirement of “wherein the coolant comprises a dielectric fluid” is a claim requirement of intended use in the pending apparatus claims. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP 2111.02).
- v. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 9, further comprising an insulator (bolted piece surrounding 398; Figure 10) housed between the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) and the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 6

- vi. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 9, further comprising an *adapter* (connections, not shown, for 372; Figure 10; column 14, line 55) for connecting to a cooling system (372; Figure 10; column 14, line 55) of the substrate to provide coolant exchange between the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) and the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 7
- vii. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) according to claim 9, wherein the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is configured to attach to the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) without the use of fasteners, as claimed by claim 8.
- viii. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) of claim 9, further comprising an insulating member ("L" piece adjacent to 370; Figure 10) adjacent to the first segment (386/398 interface) and configured to thermally insulate the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) from a substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) when the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is coupled to a substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 16
- ix. A substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) assembly comprising: a temperature-controlled substrate holder (380; Figure 10; column 14, line 54

- column 15, line 4) having a first surface (356; Figure 10; column 14, line 55) configured to support a semiconductor substrate, and a second surface (accomodating 388; Figure 10; column 14, lines 55-65) surrounding a perimeter of the first surface (356; Figure 10; column 14, line 55) and configured to support a shield ring (388; Figure 10; column 14, line 54 - column 15, line 4); and a temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) coupled to said second surface (accomodating 388; Figure 10; column 14, lines 55-65) and having at least one coolant passage (400; Figure 10; column 14, line 54 - column 15, line 4) provided within the temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4), wherein the temperature controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) rests on the second surface (top surface of 380) of the temperature controlled substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) without any fastening mechanism (1 above - none shown directly associated with 370) that mechanically fixes the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) to the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) (380; Figure 10; column 14, line 54 - column 15, line 4) to maintain a position of the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) on the temperature controlled substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 17
- x. The substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) assembly of claim 17, wherein the temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) comprises a cap (398; Figure 10; 62; Figure 2;

column 14, line 63; column 7, lines 48-63) having the at least one coolant passage (400; Figure 10; column 14, line 54 - column 15, line 4) therein, and a plenum adapter (piece immediately below 370, atop 380; Figure 10) coupled to the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) and configured to connect to a coolant system (372; Figure 10; column 14, line 55) for circulating coolant to the coolant passage (400; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 18

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 10-13, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moslehi; Mehrdad M. et al. (US 6073576 A) in view of Nagaiwa, Toshifumi et al. (US 20020029745 A1). Moslehi is discussed above. Moslehi does not teach:
 - i. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) of claim 9, wherein the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) is coupled to the plenum adapter (connections, not shown, for 372; Figure 10; column 14, line 55) by at least one annular nut, as claimed by claim 10
 - ii. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) of claim 9, further comprising at least one seal interposed between the cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) and the plenum adapter (connections, not shown, for 372; Figure 10; column 14, line 55), said

seal being configured to impede an escape of said coolant from the coolant passage (400; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 11

- iii. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) of claim 11 wherein said at least one seal comprises both a vacuum seal and a dielectric seal, as claimed by claim 12
- iv. The temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) of claim 12, further comprising a leak check port positioned between said vacuum seal and said dielectric seal, as claimed by claim 13
- v. The substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) assembly of claim 18, further comprising a focus ring coupled to said substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) and interposed between a perimeter of said substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) and said shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4); and a heat conducting element (386; Figure 10; column 14, line 54 - column 15, line 4) comprising a first segment (386/398 interface) extending along and in contact with said cap (398; Figure 10; 62; Figure 2; column 14, line 63; column 7, lines 48-63) and a second segment extending substantially perpendicular from the first segment (386/398 interface) and contacting said focus ring and said substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), wherein the heat conducting element (386; Figure 10; column 14, line 54 - column 15, line 4) provides a heat conduction path from said substrate, through said focus ring, to the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 19

- vi. The temperature controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) of Claim 9, wherein the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) has a vertical dimension such that a top surface (388; Figure 10) of the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is substantially coplanar with a substrate support surface (top surface) of the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) when the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is supported by the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 20
- vii. The substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) assembly of Claim 17, wherein a top surface (388; Figure 10) of the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is substantially coplanar with said first surface (top surface) of the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) when the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is supported by the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4), as claimed by claim 21

Nagaiwa teaches a wafer processing system (Figure 1) including:

- i. Nagaiwa's temperature-controlled shield ring (50; Figure 8) of claim 9, wherein Nagaiwa's cap (55; Figure 8) is coupled to Nagaiwa's plenum adapter (51; Figure 8) by at least one annular nut (accommodating 56a; Figure 8), as claimed by claim 10
- ii. Nagaiwa's temperature-controlled shield ring (50; Figure 8) of claim 9, further comprising at least one seal (51E; Figure 8) interposed between Nagaiwa's cap (55;

Figure 8) and Nagaiwa's plenum adapter (51; Figure 8), Nagaiwa's seal (51E; Figure 8) being configured to impede and escape of Nagaiwa's coolant from Nagaiwa's coolant passage (51D; Figure 8), as claimed by claim 11

- iii. Nagaiwa's temperature-controlled shield ring (50; Figure 8) of claim 11 wherein Nagaiwa's at least one seal (51E; Figure 8) comprises a dielectric seal (51E; Figure 8) – claim 12
- iv. Nagaiwa's substrate holder (51; Figure 8) assembly of claim 18, further comprising a focus ring (52; Figure 8; [0090]) coupled to Nagaiwa's substrate holder (51; Figure 8) and interposed between a perimeter of Nagaiwa's substrate holder (51; Figure 8) and said shield ring (50; Figure 8); and a heat conducting element (64; Figure 8) comprising a first segment (segment of 64 below top of 55; Figure 8) extending along and in contact with Nagaiwa's cap (55; Figure 8) and a second segment (segment of 64 above top of 55; Figure 8) extending substantially perpendicular from Nagaiwa's first segment (segment of 64 below top of 55; Figure 8) and contacting Nagaiwa's focus ring (52; Figure 8; [0090]) and Nagaiwa's substrate holder (51; Figure 8), wherein Nagaiwa's heat conducting element (64; Figure 8) provides a heat conduction path from Nagaiwa's substrate, through Nagaiwa's focus ring (52; Figure 8; [0090]), to Nagaiwa's shield ring (50; Figure 8), as claimed by claim 19

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Nagaiwa's temperature-controlled shield ring (50; Figure 8) elements and add an additional fluid port used as a leak check port. Further, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to optimize the dimension(s) of Moslehi's apparatus.

Motivation to add Nagaiwa's temperature-controlled shield ring (50; Figure 8) elements and add an additional fluid port used as a leak check port is for attenuating temperature increases near the edge of wafers thus influencing the yield of the processed devices ([0008]). It is well established that the duplication of parts is obvious (In re Harza , 274 F.2d 669, 124 USPQ 378 (CCPA 1960) MPEP 2144.04).

Further, it is well established that changes in apparatus dimensions are within the level of ordinary skill in the art.(Gardner v. TEC Systems, Inc. , 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied , 469 U.S. 830, 225 USPQ 232 (1984); In re Rose , 220 F.2d 459, 105 USPQ 237 (CCPA 1955); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); See MPEP 2144.04). Motivation to optimize Moslehi's shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) and/or is for providing greater surface area for heat transfer as inferred from Moslehi's heat transfer means (400; Figure 10; column 14, line 54 - column 15, line 4).

5. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moslehi; Mehrdad M. et al. (US 6073576 A) and Nagaiwa, Toshifumi et al. (US 20020029745 A1) in view of Sago; Yasumi et al. (US 7025855 B2). Moslehi and Nagaiwa are discussed above.

Nagaiwa further teaches:

- i. Nagaiwa's temperature-controlled shield ring (50; Figure 8) of claim 9, further comprising a heat conducting element (64; Figure 8) comprising: a first segment

(segment of 64 below top of 55; Figure 8) extending along and in contact with Nagaiwa's cap (55; Figure 8), and a second segment (segment of 64 above top of 55; Figure 8) extending substantially perpendicular to Nagaiwa's first segment (segment of 64 below top of 55; Figure 8) - claim 14

Moslehi and Nagaiwa do not teach:

- i. the second segment (segment of 64 above top of 55; Figure 8) being configured to contact a focus ring (52; Figure 8; [0090]) surface and a substrate holder (51; Figure 8) surface when Nagaiwa's shield ring (50; Figure 8) is coupled to a substrate holder (51; Figure 8) assembly – claim 14
- ii. Nagaiwa's temperature-controlled shield ring (50; Figure 8) of claim 14, wherein Nagaiwa's second segment (segment of 64 above top of 55; Figure 8) includes a protrusion (sloped portion) extending substantially perpendicular from Nagaiwa's second segment (segment of 64 above top of 55; Figure 8) so as to provide a discrete surface for contacting Nagaiwa's substrate holder (51; Figure 8) surface, as claimed by claim 15

Sago teaches

- ii. A second segment (25/26 interface + 282/26 interface) being configured to contact a focus ring (25; Figure 1) surface and a substrate holder (282; Figure 1) surface when Sago's shield ring (50; Figure 8) is coupled to a substrate holder (282; Figure 1) assembly – claim 14

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the relative dimension(s) of Moslehi and Nagaiwa's apparatus parts.

Motivation to optimize the relative dimension(s) of Moslehi and Nagaiwa's apparatus parts is to accommodate substrates of varying dimensions.

Response to Arguments

6. Applicant's arguments filed March 13, 2008 have been fully considered but they are not persuasive.

7. Applicant states:

“

Moslehi et al. does not explicitly describe how the clamp 386 is fixed to the heating unit 378 and support ring 398. However, Figure 10 far left side shows a fastener receptacle (not numbered, hereafter “left side fastener”) that appears to clamp an outer flange of the support ring 398 to a main body of the substrate holder.

“

And...

“

Finally, Figure 10 appears to show a fastener (unnumbered) positioned radially outward of the substrate on a right side of the drawing (hereafter, "right side fastener"). While not clearly depicted, this fastener appears to have a square head embedded within the clamp 386 and a threaded rod that extends through the heating unit 378 and insulating plate 368 into a body of the substrate holder.

“

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., above statement) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Specifically, Applicant's position is based on the claim limitation *taught* by Moslehi wherein the temperature-controlled shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) does not include any fastening mechanism² (none shown directly associated with 370) that mechanically fixes the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) to the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4) to maintain a position of the shield ring (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) on the substrate holder (380; Figure 10; column 14, line 54 - column 15, line 4). As a result, it is not how Moslehi's clamp 386 is (or is not) fixed to the heating unit 378 that is at issue. Nothing in Moslehi's drawing shows any fastening means *between* the *shield ring* (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) to the *substrate holder* (380; Figure 10; column 14, line 54 - column 15, line 4).

Applicant further states:

“

Further, inlet conduit 408 is provided through an inner flange of the support ring 398 and into a body of the substrate holder.

“

² Such as nuts & bolts and/or screws.

In response, Applicant's statement does not specifically point to any supposed error the Examiner is making against the Examiner's application of Moslehi's teachings against the pending claims.

Applicant states:

“

Further, the fact that item 408 in Figure 10 is called an “inlet conduit” does not preclude this item from also being a fastener. Indeed, the dashed lines in Figure 10 may indicate that the inlet conduit 408 is a hollow threaded rod that couples the support ring 398 to the main body of the substrate holder. Still further, the right side fastener appears to fix the clamp 386 to the heating unit 378 and support ring. In this regard, Applicants submit that the clamp 386 must be fixed to the heating unit 378 and support ring 398 in order to seal the coolant conduits 372 and seals 392.

“

In response, Moslehi's inlet conduit, other than its connection to the portion of *shield ring* (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) is shown floating and *is not* fixed to or shown to be in contact with any other component shown in Figure 10. As a result, nothing in Moslehi's drawing shows any fastening means *between* the *shield ring* (398+370+400; Figure 10; column 14, line 54 - column 15, line 4) and the *substrate holder* (380; Figure 10; column 14, line 54 - column 15, line 4) as claimed. Further Applicant's position that “the inlet conduit 408 is a hollow threaded rod that couples the support ring 398 to the main body of the substrate holder. Still further, the right side fastener appears to fix the clamp 386 to the heating unit 378 and support ring” is only speculation that is not supported by Moslehi's Figure 10 or the specification.

Applicant states:

“

The fact that Moslehi does not explicitly describe how the various parts of the substrate holder are fixed together does not mean that no fasteners exist in Moslehi's substrate holder. As noted above, Figure 10 of Moslehi provides evidence that the support ring 398 (cited as the shield ring) is fixed directly and/or indirectly to the substrate holder. therefore, Moslehi does not disclose that the temperature controlled shield ring does not include any fastening mechanism that mechanically fixes the shield ring to the substrate holder to maintain a position of the shield ring on the substrate holder, as required by amended Claims 9 and 17.

“

Further, proportions of features in a drawing are not evidence of actual proportions when drawings are not to scale. Because the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. However, the description of the article pictured can be relied on, in combination with the drawings, for what they would reasonably teach one of ordinary skill in the art. (In re Wright, 193 USPQ 332 (CCPA 1977). MPEP 2125.

Conclusion

8. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272-1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1792 art unit is (571) 273-8300. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.

/Rudy Zervigon/

Primary Examiner, Art Unit 1792

Application Number 	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/809,436	FINK, STEVEN T.	
	Examiner	Art Unit	
	Rudy Zervigon	1792	